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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

(12) 15p.

(1)

IN REPLY REFER TO
AGAM-P (M) (25 Mar 67) FOR OT RD 660345 29 March 1967

SUBJECT: Operational Report - Lessons Learned, Headquarters,
14th Combat Aviation Battalion (U). (8)

(11) 12 Nov 66

(9) Operational rept. for quarterly period ending
TO: SEE DISTRIBUTION 31 Oct 66.

1. Forwarded as inclosure is Operational Report - Lessons Learned, Headquarters, 14th Combat Aviation Battalion for quarterly period ending 31 October 1966. Information contained in this report should be reviewed and evaluated by CDC in accordance with paragraph 6f of AR 1-19 and by CONARC in accordance with paragraph 6c and d of AR 1-19. Evaluations and corrective actions should be reported to ACSFOR OT within 90 days of receipt of covering letter.

2. Information contained in this report is provided to the Commandants of the Service Schools to insure appropriate benefits in the future from lessons learned during current operations, and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

Kenneth G. Wickham

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

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a/s

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(Continued on page 2)

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DEPARTMENT OF THE ARMY
HEADQUARTERS, 14TH COMBAT AVIATION BATTALION
APO San Francisco 96238

AVGD-BC

SUBJECT: Operational Report for Quarterly Period Ending 31 October 1966
(RCS CSFOR - 65)

TO: Assistant Chief of Staff for Force Development
Headquarters, Department of the Army
Washington, D.C. 20310

SECTION 1 (C) SIGNIFICANT ORGANIZATION OR UNIT ACTIVITIES

1. (C) General

a. The mission of the 14th Combat Aviation Battalion is to provide general aviation support to Free World Military Assistance Forces and the Republic of Vietnam Armed Forces in the II Corp Tactical Zone of Binh Dinh, Phu Yen and Phu Bon Provinces of the Republic of Vietnam; and to provide aviation support to the United States military and civilian advisory effort in I and II Corp.

b. There were several changes in the organizational structure of the battalion during this quarter. Effective 4 September 1966 (Par 2, GO 32, Hq 17th Avn Gp, 30 Aug 66) the 18th Aviation Company (FW), 256th Transportation Detachment, 220th Aviation Company (FW), 231st Signal Detachment, 131st Aviation Company (FW), 134th Medical Detachment, and the 163rd Medical Detachment were reassigned from this battalion to the 223rd Aviation Battalion. Effective 23 September 1966 (Message, AVGD-SC 3023-66, Hq 17th Avn Gp) the 92nd Aviation Company (FW) was reassigned from this battalion to the 223rd Aviation Battalion. The following units remain assigned to this battalion.

- (1) 14th Security Detachment (Provisional)
- (2) 161st Aviation Company (Airmobile Light)
- (3) 174th Aviation Company (Airmobile Light)
- (4) 282nd Aviation Company (Airmobile Light)

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- (5) 406th Transportation Detachment
- (6) 409th Transportation Detachment
- (7) 449th Signal Detachment
- (8) 452nd Signal Detachment
- (9) 484th Transportation Detachment
- (10) 504th Signal Detachment
- (11) 756th Medical Detachment

c. General Orders 189, Headquarters, United States Army Pacific, 16 August 1966, re-organized the 282nd Aviation Company (Airmobile Light) under TO&E 1-77E to include paragraphs 02 and 03. This company was originally activated under TO&E less paragraphs 02 and 03.

d. Transportation and Signal Detachments are attached to each aviation company to facilitate aircraft and avionics maintenance support.

e. Information as to location and aircraft assets is as follows:

<u>UNIT</u>	<u>NO AIRCRAFT</u>	<u>HQ LOCATION</u>
HHD, 14th Avn Bn	1 U-6A	Camp Lane Qui Nhon
161st Avn Co 406th TC Det 449th Sig Det 756th Med Det	19 UH-1D, 6 UH-1B(A)	Camp Lane Qui Nhon
174th Avn Co 409th TC Det 452nd Sig Det	20 UH-1D, 8 UH-1B(540)(A)	Camp Lane Qui Nhon
282nd Avn Co 484th TC Det 504th Sig Det	16 UH-1D, 7 UH-1B	Da Nang

f. All companies have aircraft and crews stationed away from company headquarters to better serve the units they support.

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2. (C) Operations and training activities

a. Operations

(1) This battalion has been engaged in combat or combat support operations every day of this reporting period.

(2) During this past quarter, units accomplished these results:

	AIRCRAFT FLYING HOURS	TROOPS/PASSENGERS	CARGO TONS
August	9,647	42,269	4,110
September	5,189	36,778	3,307
October	<u>5,399</u>	<u>34,660</u>	<u>2,547</u>
Total	20,235	113,707	9,964

(3) This battalion continued to provide the sole aviation support to the Capital ROK Infantry Division during this period. In addition to combat support troop movements and resupply, this battalion supported the Korean Division in eleven separate airmobile assault operations. The combined Operations Duel Kuk Hwa and Irving were the largest and most extensive operations during this period.

(4) In addition to the normal support given to the advisory effort in II Corps, this battalion conducted five separate airmobile assault operations with elements of the 22nd Infantry Division, Army of the Republic of Vietnam.

(5) This battalion also provided aviation support for the Special Operations Group in the I Corps area from 19 August 1966 to 13 September 1966 and the 5th Special Forces Project Omega from 1 October to 30 October 1966.

(6) This battalion was in direct support of the 1st Cavalry Division (airmobile) for the period 13 to 18 September 1966. Battalion aircraft flew 640 hours during Operation Thayer in providing direct support. Various 1st Cavalry Division Aviation Companies have used and are using the facilities of the North Heliport at Lane AAF for "laagering" and security from mortar attacks.

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b. Training

(1) All units completed familiarization firing of individual and crew served weapons. Each unit within this battalion conducts familiarization firing monthly for all personnel.

(2) A training area for the firing of helicopter weapon systems was allotted to this battalion by the Capital BOK Infantry Division. This area is used three to four times a week and is invaluable in training new helicopter crew members and maintaining weapons familiarization.

(3) Training was conducted on the Decca Navigation system by a Decca technical representative.

SECTION 2 (C) COMMANDER'S OBSERVATIONS AND RECOMMENDATIONS

Part I, Observations (Lessons Learned)

1. (C) Operations

a. Item: Need to smoke the landing zone during combat assault.

Discussion: Effective smoke screening of the landing zone is desired to prevent observation and aimed fire from suspected locations or existing fortifications when air and artillery are not available.

Observation: The M-3 system with WP rockets provide effective screening plus an added psychological effect. However, the rapid build up and dissipation of WP requires accurate timing by the gunships. This can best be controlled by use of a command and control aircraft. New systems now in-country for test and use will be used when distribution through supply channels are made.

b. Item: Terrain analysis in the selection of landing zones.

Discussion: This battalion has not lost an aircraft to hostile fire while approaching, during landing, or departing from an LZ during an airmobile combat assault. This is attributable to the tactical concept of selecting and recommending small two and three ship landing zones on mountain tops and ridgelines whenever possible.

Observation: In counter-insurgency warfare, these areas are not normally heavily occupied by hostile forces and are not dominated by surrounding terrain. They are also less obvious to the enemy.

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c. Item: Naval gunfire support.

Discussion: Naval fire support has proved to be ineffective when controlled by personnel other than a qualified naval observer. However, with qualified Navy observers available, naval fire support is very effective.

Observation: Qualified Navy observers should be used to adjust and control naval fire support.

d. Item: Failure to provide suppressive fire during airmobile extractions allows enemy forces to fire at helicopters at extremely critical time.

Discussion: The use of suppressive fire techniques during airmobile extractions are necessary to protect helicopters while loading troops, and during the departure when the helicopters are at slow airspeeds and at low altitudes. This is particularly vital as friendly ground forces are normally engaged with enemy ground forces and cannot cover the helicopters. There are positive steps that can be taken to minimize these risks.

(1) When multiple lifts are required to extract a force, the primary suppressive fire must come from the ground force. The ground force must provide this fire while the helicopters are on approach, on the ground and during departure. This fire must be intense, with the intent of disrupting opportunities for the enemy to fire.

(2) During one lift extractions, and on the final extraction of a multiple lift, suppressive fire must be coordinated between ground force and helicopter suppressive fire systems.

(a) During approach and landing, primary suppressive fire will come from the ground force.

(b) During loading, armed helicopters should provide suppressive fire around perimeter of extraction zone. One man from each squad should continue to fire until ready to board the helicopter.

(c) After troops are loaded the outboard door gunner should pick up the firing.

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(d) During take off and departure suppressive fire should be continued by outboard door gunners.

(e) Armed helicopters should continue suppressive fire during take off and departure on the flanks and to the front of the flight.

Observation: Plans for possible extractions should be made for all airmobile assaults and both ground and helicopter forces must fully understand their role in its successful accomplishment.

e. Item: Many helicopters receive fire during medical evacuation missions.

Discussion: During medical evacuation missions many helicopters are fired at and hit often negating the lifesaving effort being made. There are positive steps that can be taken to minimize those risks.

(1) When possible, evacuate wounded three to five hundred meters from area of active combat. This would keep helicopters out of effective small arms range, and could normally be accomplished while the helicopter was enroute to pick up point.

(2) Instruct ground forces to fire suppressive fire while wounded are being loaded on helicopter and during its departure.

(3) Insure that aviators are knowledgeable of ground situation so that they plan approaches and departures over friendly positions.

Observation: Aircrews and ground forces must make maximum effort to protect helicopters evacuating wounded.

f. Item: Loose objects on and in vicinity of helipads cause unnecessary hazards and damage to helicopters.

Discussion: Many instances of helicopter blade damage has come from loose objects being blown by rotor wash. There are positive steps that commanders and aviators can take to minimize this hazard.

(1) Locate helipads away from living areas, tents, and etc.

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(2) Conduct frequent inspections of helipads to insure no loose objects are laying about.

(3) Aviators must remain alert and not land at cluttered helipads.

(4) Aviators should make recommendations to ground commanders on police and location of helipads.

Observation: Commanders and aviators must continually be alert to prevent location of loose objects on or near helipads.

g. Item: Misunderstandings frequently occur due to language barriers between various Free World Military Assistance Forces.

Discussion: There have been many instances of misunderstanding of units being provided helicopter support because of language barriers. This problem has been eliminated by the preparation of bilingual cards which are kept in the helicopters.

Observation: That aviation units have bilingual cards with common phrases prepared when supporting other Free World Forces.

h. Item: Language barriers during combat assaults.

Discussion: When airmobile units are supporting Free World Military Assistance Forces, language barriers sometimes result in personnel being dropped off in the wrong landing zone. To prevent this possibility, the Capital ROK Infantry Division prepares a small sign carried by the senior member of each aircraft load on which is marked his landing zone coordinates and code name.

Observation: This technique has proved effective and is a worthwhile consideration for other Free World Forces.

i. Item: Marking of front line traces on heliborne assaults.

Discussion: A positive marking of front line traces is necessary during heliborne assaults. The Capital ROK Infantry Division accomplishes this by having one soldier in each aircraft wear a Da-Glo red panel on his back. When the front line trace needs marking, these men lie down flat on the ground and mark their position to the airborne elements.

Observation: The use of Da-Glo panels on the backs of individual soldiers is an effective means of marking front line traces.

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2. (C) Training

Item: Fuel governor systems have been rendered inoperative on UH-1 helicopters by hostile fire while in unsecure areas.

Discussion: Helicopters on brief stops in unsecure areas have on occasion sustained hits in the collective or overhead panel rendering the governor system inoperative. If the RPM has been decreased by the governor control and hits are sustained, safe evacuation from the area may be impossible. With the RPM remaining beeping to 6600, crews have been able to pull pitch and evacuate an area after the aircraft has been hit by hostile fire and the governor system rendered inoperative.

Observation: Aviators should be instructed to remain at 6600 RPM when waiting in unsecure areas for short durations.

3. (U) Intelligence

Item: Debriefing of pilots.

Discussion: An effective intelligence collection program at company level requires that the intelligence officer debrief crews after all flights. Experience has proven that aviators fail to report items they observe in areas where daily flight operations are conducted. When a valuable sighting has been recorded it is often discovered that other aviators have seen the same indication but have considered it unimportant.

Observation: Company intelligence personnel will continue to debrief crews in an attempt to have the crews report all details no matter how insignificant it may seem.

4. (U) Logistics

Item: POM requisitions are not being received in RVN by proper units.

Discussion:

a. Aviation units which are formed and alerted for overseas movement are supplied with the maximum TOE equipment available at the time. Equipment which is not available for issue and is to be furnished at the port or on arrival overseas is placed on preparation for overseas movement (POM) requisition.

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b. After units arrive in Vietnam they are often deployed to an area other than originally planned. However, materiel requisitioned in CONUS is shipped to and off-loaded at the port supporting the originally planned area. Consequently, equipment and supplies often do not reach the units. There appears to be little coordination between the logistical command, its subordinate commands and the units which they support, to insure that equipment and supplies reach the proper location.

c. In many cases, the equipment and supplies on POM requisitions for a unit are placed in stock and used to fill requisitions by other units. This necessitates a new requisition by the initial requestor and negates the effectiveness of POM requisitioning systems.

Observation: The logistical command and subordinate support commands should employ more stringent control measures to insure that POM equipment and supplies reach the proper unit. It would also help if final destination in Vietnam could be determined prior to the unit departing CONUS.

Part II Recommendations

1. (C) Operations

Problem: Artillery advisory procedures for aircraft vary widely with each unit. Some units broadcast the advisory in clear text on guard channel, some units broadcast the advisory in some form of code on select frequencies, and other units do not broadcast an advisory at all. As a result of these widely varying procedures, an enroute aircraft can rarely obtain a valid artillery advisory for the area through which he is flying. The present non-standard procedures are inadequate for the situation and it is only a matter of time before an enroute aircraft is hit with a friendly artillery shell.

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Recommendation: A standard procedure should be established to provide artillery advisory information from all friendly forces to enroute aircraft. A common frequency should be established, and a common method of describing the danger area should be used. The Army Flight Following System is probably best disposed to provide this service at the present time.

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2. (C) Training

Problem: Aviation companies in combat and combat support operations are often required to support special missions (e.g. Special Forces and Special Operations Group), without having personnel trained or familiar with the special requirements of the mission. Aviation elements could better perform their support for special missions if prior training was conducted. Normally, airmobile companies are not trained for these special missions and obtain their initial training during the conduct of their mission. Consequently, during the early stages of such operations, the efficiency and full capabilities of the aviation support is not realized.

Recommendation: That a three day training period be established prior to the start of the mission. That training include a map study and reconnaissance of the operating area, use of ladders and McQuire rigs, methods of inserting and extracting teams, and survival in the operational area.

3. (C) Logistics

a. Problem: Aviation companies (airmobile light) and aviation battalions do not have organic means available to conduct aerial photo-reconnaissance. This ability would greatly enhance reconnaissance for the selection of landing zones and pick up zones. The availability of photographs would also be invaluable in the conduct of planning and briefings for assault operations. Equipment should include rapid reproduction capabilities.

Recommendation: Each aviation company (airmobile light) be authorized two aerial type polaroid cameras and aviation battalions be authorized on camera of this type.

b. Problem: Storage of unneeded equipment for helicopters in aviation companies in Vietnam. For example, the internal soundproofing is removed to allow hasty estimation of bullet damage. This soundproofing will mildew and shrink in storage, as conexes do not adequately protect it from heat and moisture. Some items of equipment have been removed to decrease weight such as cargo hook assemblies from all gunships to effect a fifty-four pound weight saving.

Recommendation: Permit certain selected items to be turned in through normal supply channels for reissue. This allows 780 inventories to be adjusted with a realized monetary and material savings.

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c. Problem: Constant need to check all rocket systems for stray voltages in an attempt to eliminate the inadvertant firing of 2.75" rockets. Even constant checking has not been effective, as indicated by accident reports and command emphasis.

Recommendation: Request a design change be made in rocket motor ignition systems from the low voltage requirement of existing motors to ignite (as low as three volts) to an ignitor that requires a minimum of 60 volts AC/DC. The modification to the aircraft subsystem is simplified by taking the firing voltage from the aircraft inverter system (110 volts @ 400 cps) instead of DC electrical system (24 - 28 volts). The stray voltage problem is eliminated as required ignition voltage is more than twice the available voltage of the primary DC system. For applications on OH-13 or O-1A type aircraft where inverters are not installed, the aircraft subsystem can be modified by incorporating an inverter designed to provide the amperage and voltage required or installation of a "boost coil" in the existing system to increase the voltage well above the required minimum.

d. Problem: Ammunition feed motor damage as a result of jammed weapons on the M-6 or XM-16 system. The present feed motors pull ammunition from the feed trays into the motor area and thus assist the gun in feeding. The motors are being damaged when a stoppage occurs. Even though a stoppage occurs, the feed motor for that gun will continue to turn when the firing switch is depressed. The teeth which pull the ammunition are worn and even broken off as they continue to strike the jammed ammunition.

Recommendation: A cut-off micro-switch which distinguishes differentials in demand for ammunition could be incorporated in this system. When the demand for ammunition in a particular gun ceases, a micro-switch for that motor would shut it off.

e. Problem: The UH-1 helicopter armed with the M-5 helicopter armament subsystem is incapable of covering the aircraft ahead of it during firing passes. Some M-5 systems have been modified to include the XM-158 aerial rocket launchers. This increases the effectiveness of the system by extending the engagement range of the aircraft but does not include a covering capability.

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Recommendation: Replace the XM-158 with the XM-134 or a fixed gun system similar to that used by the Marine Corps. The XM-21 subsystem would be the preferred system when the T-53-L-13 engine is installed. Either of these subsystems employed with the M-5 will eliminate the inability to cover other aircraft during firing passes.

Samuel P Kallagian
SAMUEL P KALLAGIAN
LTC Infantry
Commanding

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SUBJECT: Operational Report for Quarterly Period Ending 31 October 1966
(RCS CSFOR - 65)

HEADQUARTERS 17TH COMBAT AVIATION GROUP, APO 96240 12 November 1966

TO: Assistant Chief of Staff for Force Development, Headquarters, Department
of the Army, Washington, D.C. 20310

1. (U) Basic communication is forwarded for information and necessary action.
2. (C) This headquarters concurs with Part II Recommendations as modified herein.
 - a. Reference paragraph 1. Further recommend the advisory system be set up on a UHF frequency. This would increase the range of transmission, be easier to tune through use of pre-selected channels on aircraft radios and would not interfere with tactical FM frequencies.
 - b. Reference paragraph 2. In view of the increased airmobile operations conducted in RVN a more thorough training and indoctrination program should be given to units prior to departure from CONUS.
 - c. Reference paragraph 3. If the micro-switch system had to be complicated in design then possibly a pressure release clutch built within the drive gear would eliminate the problem.
3. (U) Lessons Learned and Commanders Recommendations will be disseminated to the Combat Aviation Battalions assigned this Headquarters.

FOR THE COMMANDER:

Franklin L. Wilson
FRANKLIN L WILSON
LTC, Infantry
Adjutant

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